Serial No.: 10/808,264

PATENT APPLICATION Docket No.: NC 96,200

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1. (previously presented) A polyaromatic ether comprising the formula:

$$-\left(O-Ar\right)_{n}$$

wherein Ar is an independently selected divalent aromatic radical with or without substituents containing one or more fused aromatic rings, one or more non-fused aromatic rings without intervening functional groups, or combinations thereof wherein the radical sites are on the same or different aromatic rings; and

wherein n is an integer greater than or equal to 7.

- 2. (currently amended) The polyaromatic ether of claim 1, wherein the each divalent aromatic radical is m- or p-phenylene.
- 3. (currently amended) An aromatic ether oligomer comprising the formula:

$$T - Ar + O - Ar + T$$

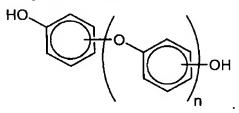
wherein Ar is an independently selected divalent aromatic radical with or without substituents containing one or more fused aromatic rings, one or more non-fused aromatic rings without intervening functional groups, or combinations thereof wherein the radical sites are on the same or different aromatic rings;

wherein T is a terminating group independently selected from the group consisting of -OH and -X;

wherein X is independently selected from the group consisting of Br and I; and wherein n is an integer greater than or equal to 1.

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- 4. (original) The aromatic ether oligomer of claim 3, wherein n is less than or equal to about 100.
- 5. (original) The aromatic ether oligomer of claim 3, wherein n is selected from the group consisting of 2, 4, 6, and 8.
- 6. (original) The aromatic ether oligomer of claim 3, wherein both terminating groups are -OH; and n is an even integer greater than or equal to 2.
- 7. (original) The aromatic ether oligomer of claim 6, wherein the aromatic ether oligomer comprises the formula:



8-21. (cancelled)

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22. (currently amended) A process of preparing a polyaromatic ether comprising the formula:

$$-\left(O-Ar\right)_{n}$$

wherein Ar is an independently selected divalent aromatic radical with or without

substituents containing one or more fused aromatic rings, one or more

non-fused aromatic rings without intervening functional groups, or

combinations thereof wherein the radical sites are on the same or different
aromatic rings;

comprising the step of reacting a dihydroxyaromatic with a dihaloaromatic;
wherein neither the dihydroxyaromatic nor the dihaloaromatic is present in an
excess amount; and

wherein the reaction is performed in the presence of a copper compound and a base.

- 23. (original) The process of claim 22, wherein the copper compound is selected from the group consisting of CuI and CuBr.
- 24. (currently amended) A process of preparing a polyaromatic ether comprising the formula:

$$-\left(O-Ar\right)_{n}$$

wherein Ar is an independently selected divalent aromatic radical with or without substituents containing one or more fused aromatic rings, one or more non-fused aromatic rings without intervening functional groups, or combinations thereof wherein the radical sites are on the same or different aromatic rings;

comprising the step of reacting a halohydoxyaromatic in the presence of a copper compound and a base.

25. (original) The process of claim 24, wherein the copper compound is selected from the group consisting of CuI and CuBr.

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26. (currently amended) A process of preparing an aromatic ether oligomer comprising the formula:

$$T - Ar + O - Ar + T$$

wherein Ar is an independently selected divalent aromatic radical with or without substituents containing one or more fused aromatic rings, one or more non-fused aromatic rings without intervening functional groups, or combinations thereof wherein the radical sites are on the same or different aromatic rings;

wherein T is a terminating group independently selected from the group consisting of -OH and -X;

wherein X is independently selected from the group consisting of Br and I; wherein n is an integer greater than or equal to 1;

comprising the step of reacting a dihydroxyaromatic with a dihaloaromatic;

wherein the reaction is performed in the presence of a copper compound and a base; and

wherein either the dihydroxyaromatic or the dihaloaromatic is present in an excess amount.

- 27. (original) The process of claim 26, wherein the copper compound is selected from the group consisting of CuI and CuBr.
- 28. (original) The process of claim 26, wherein the dihydroxyaromatic is present in an excess amount to form a hydroxy-terminated aromatic ether oligomer comprising the formula:

$$HO-Ar + O-Ar + OH$$

wherein n is an even integer greater than or equal to 2.

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29. (original) The process of claim 28,

wherein the dihydroxyaromatic is selected from the group consisting of resorcinol, hydroquinone, and combinations thereof;

wherein the dihaloaromatic is a selected from the group consisting of mdibromobenzene, p-dibromobenzene, m-diiodobenzene, p-diiodobenzene, m-bromoiodobenzene, p-bromoiodobenzene, and combinations thereof; and

wherein the hydroxy-terminated aromatic ether oligomer formed by the process comprises the formula:

30. (original) The process of claim 26,

wherein the dihaloaromatic is present in an excess amount to form a haloterminated aromatic ether oligomer comprising the formula:

$$X \longrightarrow Ar + O \longrightarrow Ar \longrightarrow D$$

wherein n is an even integer greater than or equal to 2.

31. (original) The process of claim 30, further comprising the step of reacting the halo-terminated aromatic ether oligomer with a dihydroxyaromatic to form a hydroxy-terminated aromatic ether oligomer comprising the formula:

$$HO-Ar"-O-Ar-O-Ar"-O-Ar"-OH$$

wherein Ar" is a divalent aromatic radical.

32-55. (cancelled)

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56. (previously presented) The process of claim 22 wherein the base is selected from the group consisting of cesium carbonate and potassium carbonate.

- 57. (previously presented) The process of claim 24 wherein the base is selected from the group consisting of cesium carbonate and potassium carbonate.
- 58. (previously presented) The process of claim 26 wherein the base is selected from the group consisting of cesium carbonate and potassium carbonate.